

F. L'ENT COOPERATION TREA

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

Assistant Commissioner for Patents United States Patent and Trademark Office

Box PCT Washington, D.C.20231

0002

ÉTATS-UNIS D'AMÉRIQUE

Applicant's or agent's file reference

Priority date (day/month/year) 24 April 1998 (24.04.98)

in its capacity as elected Office

Date of mailing (day/month/year) 21 January 2000 (21.01.00)

PCT/US99/06537 International filing date (day/month/year)

19 April 1999 (19.04.99)

Applicant

FANG, Fang

International application No.

1. The designated Office is hereby notified of its election made:

X in the demand filed with the International Preliminary Examining Authority on:

18 November 1999 (18.11.99)

in a notice effecting later election filed with the International Bureau on:

2. The election

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

R. Chrem

Telephone No.: (41-22) 338.83.38

Facsimile No.: (41-22) 740.14.35

PCT

REC'D	1 5 AUG 2000
WIPC	PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

19815-2PC		tification of Transmittal of Internation ry Examination Report (Form PCT/IPEA/41			
International application No.	International filing date (day/month/year)	Priority date (day/month/year)			
PCT/US99/06537	19 APRIL 1999	24 APRIL 1998			
International Patent Classification (IPC) Please See Supplemental Sheet.	or national classification and IPC				
Applicant FANG, FANG					
Examining Authority and is 2. This REPORT consists of a This report is also accombeen amended and are the	total of sheets. shappanied by ANNEXES, i.e., sheets of the define basis for this report and/or sheets containstion 607 of the Administrative Instructions	so Article 36. scription, claims and/or drawings which he ing rectifications made before this Authori			
These annexes consist of a to	461	s wider the PC1).			
3. This report contains indication	ns relating to the following items:				
I X Basis of the repo	ort				
II Priority					
III Non-establishment of report with regard to novelty, inventive step or industrial applicability IV Lack of unity of invention V X Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability citations and explanations supporting such statement					
			V X Reasoned statemer citations and expla	nt under Article 35(2) with regard to novel anations supporting such statement	ry, inventive step of industrial application
			V X Reasoned statemer citations and expla	anations supporting such statement	, inventive step or industrial application
			VI Certain documents	anations supporting such statement cited	ity, inventive step of industrial application
VI Certain documents VII Certain defects in the	enations supporting such statement cited the international application	ity, inventive step or industrial application			
VI Certain documents VII Certain defects in the	anations supporting such statement cited	, inventive step of industrial application			
VI Certain documents VII Certain defects in the	enations supporting such statement cited the international application	, inventive step of industrial application			
VI Certain documents VII Certain defects in the	enations supporting such statement cited the international application	, inventive step of industrial application			
VI Certain documents VII Certain defects in the	enations supporting such statement cited the international application	, inventive step of industrial application			
VI Certain documents VII Certain defects in the	enations supporting such statement cited the international application	,			
VI Certain documents VII Certain defects in the	enations supporting such statement cited the international application				
VI Certain documents VII Certain defects in to	cited the international application as on the international application	or of this report			
VI Certain documents VII Certain defects in to VIII Certain observation Oate of submission of the demand 18 NOVEMBER 1999 Name and mailing address of the IPEA/A	Date of completic 17 JULY 200 Authorized of fice	or of this report			
Citations and expla VI Certain documents VII Certain defects in the certain observation Oate of submission of the demand 18 NOVEMBER 1999	Date of completic 17 JULY 200 Authorized of fice	or of this report			





PCT/US99/06537

Basis of the report 1. With regard to the elements of the international application:* the international application as originally filed the description: 1-24 pages _ _ , as originally filed NONE pages _ _, filed with the demand NONE _____, filed with the letter of pages __ the claims: 25-26 pages _ _ , as originally filed NONE ___, as amended (together with any statement) under Article 19 pages _ NONE _____, filed with the demand pages _ NONE pages _ _ , filed with the letter of the drawings: NONE pages _ _____, as originally filed NONE _____ , filed with the demand pages _ NONE $lap{1}{3}$, filed with the letter of $lap{1}{2}$ pages __ the sequence listing part of the description: NONE pages _ _ , as originally filed NONE pages ___ __ , filed with the demand NONE pages _ , filed with the letter of _ 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/ or 55.3). 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing: contained in the international application in printed form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the writen sequence listing has been furnished. 4.[X The amendments have resulted in the cancellation of: the description, pages NONE the claims, Nos. NONE the drawings, sheets/fig This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).** * Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17). **Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/06537

V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
	citations and explanations supporting such statement

1.	statement			
	Novelty (N)	Claims	1-15	YES
		Claims	NONE	NO
	Inventive Step (IS)	Claims	9-15	YES
		Claims	1-8	NO
		.		
	Industrial Applicability (IA)	Claims	1-15	YES
		Claims	NONE	NO

2. citations and explanations (Rule 70.7)

Claims 1-4 lack an inventive step under PCT Article 33(3) as being obvious over US Patent No. 5,723,826 to Dower et al. US Patent No. 5,723,826 discloses methods for screening for complementary peptide ligands to a target protein, using a collection of nucleic acids that may be based on either a known or an unknown ligand sequence, where the nucleic acid sequences are expressed as fusion proteins on surface of bacteriophages.

Claims 5-8 lack an inventive step under PCT Article 33(3) as being obvious over US Patent No. 5,723,826 to Dower et al. in view of US Patent No. 5,077,195 to Blalock et al. The relevant teachings of US Patent No. 5,723,826 are set forth above. US Patent No. 5,723,826 does not disclose complementary peptides that are anti-sense peptides. US Patent No. 5,077,195 discloses determining anti-sense peptide ligands for a protein of interest. It would have been obvious to one of ordinary skill in the art at the time the invention was made to design anti-sense peptides of US Patent No. 5,077,195 for expression and screening by the method of US Patent No. 5,723,826 because US Patent No. 5,077,195 establishes the interest in designing and making anti-sense peptide ligands and because US Patent No. 5,723,826 provides a generally applicable and successful method for screening for complementary peptide ligands to a target protein.

Claims 1-15 meet the criteria set out in PCT Article 33(2) because the prior and does not anticipate the claimed screening and treatment methods.

Claims 9-15 meet the criteria set out in PCT Article 33(3) because the prior art does not teach or fairly suggest the claimed screening and treatment methods based on binding to the framework 2 region of an immunoglobulin molecule.

Claims 1-15 meet the criteria for industrial applicability set out in PCT Article 33(4) because the claimed methods can be used to screen for peptides of interest that may be used to treat autoimmune or allergic conditions.

(Continued on Supplemental Sheet.)





	PCT/US99/06537	
Supplemental Box (To be used when the space in any of the preceding boxes is not	sufficient)	
Continuation of: Boxes I - VIII	s	heet 10
CLASSIFICATION: The International Patent Classification (IPC) and/or the Natio IPC(7): C12Q 1/68; C12P 19/34; A61K 39/395, 38/02 and US Cl.:	nal classification are as listed below: 435/6, 91.2; 424/131.1, 143.1; 514/2	
V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANAT	IONS (Continued):	
NONE NEW CITATIONS		
-		
		•





INTERNATIONAL SEARCH REPORT

International application No. PCT:LIS99:06537

IPC(6) :0	SIFICATION OF SUBJECT MATTER C12Q LWS; C12P 19/34; A61K 39/395, 38/02 435/K, 91.2; 424/131.1, 143.1; 514/2 Laternational Patent Classification (IPC) or to both national	classification and IPC	
B. FIEL	DS SEARCHED		
	scumentation searched (classification system followed by cla	usification symbols)	
U.S. : 4	35%, 91.2; 424/i31.1, 143.1; \$14/2		
Documentati	on secrebed other than minimum documentation to the extent	that such documents are included	in the fields senrebed
	nts base consulted during the international search (name of went/WEST; Dialog	data base and, where practicable.	sourch turns used)
C. DOC	UMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropria	te, of the relevant passages	Relevant to claim No.
Y	US 5,077,195 A (BLALOCK et al.) 31 De document, especially col. 22, lines 52-57.	cember 1991, see entire	1-15
Y	US 5,723,286 A (DOWER et al.) 03 March 1998, see entire document.		
Y	US 5,081,584 A (OMICHINSKI et al.) 14 January 1992, see entire document.		
Y	US 5,223,409 A (LADNER et al.) 29 document.	June 1993, see entire	1-15
		·	
	ner documents are listed in the continuation of Box C.	See patent family annex.	
<u> </u>	pecial categories of cited documents:	later document published after the in	ternational filing date or priority
.V. qo	ocument defining the general state of the art which is not considered	date and not in conflict with the app the principle or theory underlying the	lication but cited to understand
. ©Ç∢ ©	be of particular relevance 'X' CA OC	்ட் ச் ம் நாக்கர் சிர்கர் இரு	re claimed invention cannot be SECTHOCHEOPT XOC
1	·		
		1 111 1	
[1]	111	<u>' </u>	M // //
1 1 1		1113 3 1 1-ri	i